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FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 54

[WC Docket No. 10-90; DA 13-1846]

Wireline Competition Bureau Announces Availability of Version 3.2 of the Connect America Fund Phase II Cost Model Illustrative Results.

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document, the Wireline Competition Bureau announces the availability of the next version of the Connect America Cost Model (CAM v3.2), which includes certain adjustments to the CAM to reflect the unique circumstances and operating conditions in the non-contiguous areas of the United States. The Bureau seeks comment on these changes, specifically the addition of the capability to model costs for undersea cable connecting non-contiguous areas to the contiguous United States, plant mix values submitted by Alaska Communications Systems Group, Inc. (ACS) for Alaska, and using the default value of “1” for the regional cost adjustment for the U.S. Virgin Islands, which has the effect of increasing labor costs. Lastly, the Bureau seeks comment on using the plant mix values that were filed separately in models previously filed by Puerto Rico Telephone Company, Inc. (PRTC) and Virgin Islands Telephone Corporation d/b/a Innovative Telephone (Vitelco) in the next version of the CAM.

DATES: Comments are due on or before September 12, 2013 and reply comments are due on or before September 19, 2013.

ADDRESSES: Interested parties may file comments on or before September 12, 2013 and reply comments on or before September 19, 2013. All pleadings are to reference WC Docket No. 10-

90. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies, by any of the following methods:

- **Electronic Filers:** Comments may be filed electronically using the Internet by accessing the ECFS: <http://fjallfoss.fcc.gov/ecfs2/>.
- **Paper Filers:** Parties who choose to file by paper must file an original and one copy of each filing.
- **People with Disabilities:** To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (tty).

For detailed instructions for submitting comments and additional information on the rulemaking process, see the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Katie King, Wireline Competition Bureau at (202) 418-7491 or TTY (202) 418-0484.

SUPPLEMENTARY INFORMATION: This is a synopsis of the Wireline Competition Bureau's Public Notice (Notice) in WC Docket No. 10-90; DA 13-1846, released August 29, 2013. The complete text of this document is available for inspection and copying during normal business hours in the FCC Reference Information Center, Portals II, 445 12th Street, SW, Room CY-A257, Washington DC 20554. The document may also be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc., 445 12th Street, SW, Room CY-B402, Washington, DC 20554, telephone (800) 378-3160 or (202) 863-2893, facsimile (202) 863-2898, or via Internet at <http://www.bcpiweb.com>.

1. The Wireline Competition Bureau (Bureau) announces the availability of the next version of the Connect America Cost Model (CAM v3.2), which includes certain adjustments to the CAM to reflect the unique circumstances and operating conditions in the non-contiguous areas of the United States. The Bureau seeks comment on these changes, specifically the addition of the capability to model costs for

undersea cable connecting non-contiguous areas to the contiguous United States, plant mix values submitted by ACS for Alaska, and using the default value of “1” for the regional cost adjustment for the U.S. Virgin Islands, which has the effect of increasing labor costs. The Bureau also seeks comment on using the plant mix values that were filed separately in models previously filed PRTC and Vitelco in the next version of the CAM.

2. Description of Changes in CAM v3.2. CAM v3.2 updates the prior version (CAM v3.1.4) in a number of respects, and the Bureau seeks comment on several of the changes. First, this version adds code changes and a new Undersea tab in the Capital Expenditures (Capex) workbook that includes inputs for undersea cable and landing stations. These changes and inputs are used to calculate the investment and cost for undersea and landing station facilities that connect areas outside of the contiguous United States, including Alaska, Hawaii, Puerto Rico, the U.S. Virgin Islands and Northern Mariana Islands, to the contiguous United States. Second, this version includes plant mix values for Alaska that were recently filed by ACS.

3. In addition, this version makes a number of other changes. It adjusts the regional cost adjustment table to reflect that Zip 3 = 008, which had been previously coded for Puerto Rico, is in the U.S. Virgin Islands and sets the value of the cost adjustment for Zip 3 = 008 to 1.0 (i.e., no adjustment) in the absence of R.S. Means data regarding labor costs for the Virgin Islands. It includes minor modifications to some existing investment calculations to more accurately reflect network infrastructure. Finally, it includes several updates to the documentation and makes additional clean-up changes to the Capex workbook. These changes are reflected in two solution sets that can be accessed by accessing CAM v3.2, and visiting the Posted Data Sets page. These solution sets can be found under the Model Outputs section of the Posted Data Sets tab: SSYYYYMMDDCAM32ACF8UndSeaCpx and SSYYYYMMDDCAM32ACF9UndSeaCpx solution sets under Model Outputs.

4. Issue for Comment: Submarine Cable. CAM v3.2 includes the capability to model costs for undersea cable to non-contiguous areas. CAM v3.2 also adds a new “Undersea” tab in the Capex workbook, which includes the inputs used to calculate the investment and cost for undersea cable and landing station facilities needed to transport traffic to and from landing stations in non-contiguous areas to

landing stations in the contiguous United States. To help parties understand and comment on the adjustments incorporated in v3.2, the Bureau explains the modeling assumptions below.

5. First, the Bureau seeks comment on CAM v3.2’s approach to connecting the non-contiguous areas to the contiguous United States. In the maps appended to the Public Notice, CAM v3.2 models undersea cables: from Alaska to Oregon and Washington; from the Northern Marianas to Guam and from Guam to Oregon; from Hawaii to California; from the U.S. Virgin Islands to Puerto Rico and from Puerto Rico to Florida; and from Puerto Rico to Florida. The specific endpoints of the undersea cables are marked on the maps.

6. The length or “footage” of these undersea cable connections is a key cost driver. The Bureau seeks comment on the footage estimates in Table 1. Note that to ensure resiliency, the footage for each connection includes the additional footage needed for path redundancy. In addition, each spur connects independently to a tandem location within the contiguous United States.

7. Table 1: Undersea Cable Footage

AREA	UNDERSEA CABLE FOOTAGE
Alaska	21,206,745
Hawaii	26,029,830
North Marianas Islands	61,602,894
Puerto Rico	11,258,578
U.S. Virgin Islands	12,072,945

8. The Bureau also seeks comment on CAM v3.2’s assumption that the cost of materials and labor per foot of undersea cable is \$11.05. This cost per foot is based on publicly available information regarding AKORN, an undersea cable between Alaska and Oregon. It is the same for each undersea cable because, unlike land-based connections where costs vary by the soil type in a given area, CAM v3.2 assumes that the costs for undersea cable do not vary based on the body of water in which the cable is located.

9. Next, the Bureau seeks comment on CAM v3.2’s methodology for modeling whether a carrier would construct such an undersea cable or instead lease capacity on an existing international undersea cable. This version of the model input assumes that the presence and capacity of international

undersea cables are driven primarily by international traffic demand, not by the traffic of the local exchange carrier (LEC) in areas with landing stations. This version of the model inputs assumes that, if the demand from the modeled network would outstrip capacity on these existing international undersea systems, without concurrent increases in demand for bandwidth that passes through the location, then construction of a new system would be economically justifiable. If, however, the capacity required would amount to only a fraction of available capacity, CAM v3.2 assumes that a carrier would lease capacity on an existing cable.

10. It is assumed that the cost of transport back to the contiguous United States would be the fraction of cost associated with the fraction of the cable being consumed by peak demand of the modeled network. This assumes that the price for a LEC to buy capacity on an existing cable would be comparable to the cost of providing that access plus a rate of return comparable to the one assumed in CAM. Given that each non-contiguous area with an international cable route is served by multiple cable systems, we believe that this is a reasonable assumption. To the extent commenters disagree with these assumptions and instead argue that rates are substantially higher, they should provide specific information on these rates to the Bureau, including the route and amount of capacity being purchased.

11. To make that determination, Bureau staff first looked at existing capacity. As seen in Table 2, below, most of the non-contiguous areas have international cable routes with landing stations on them, and most of the cable routes have additional capacity available.

12. Table 2: International Cable Route and Capacity Table

AREA	CABLE ROUTE NAME	TOTAL CAPACITY (Tbps)	LIT CAPACITY (Gbps)
Alaska	N/A	N/A	N/A
Hawaii	AAG	2.88	700
Hawaii	Southern Cross	6	2,000
Hawaii	TPC-5	0.01	10
Northern Marianas Islands (Guam)	AAG	2.88	700
Northern Marianas Islands (Guam)	TGN-Pacific	7.68	5,120
Puerto Rico	America Movil-1	0.10	40
Puerto Rico	Americas-II	0.21	80
Puerto Rico	ARCOS-1	1.02	80
Puerto Rico	PCCS	80	100
Puerto Rico	Sam-1	1.92	310
U.S. Virgin Islands	Americas-I	0.32	120
U.S. Virgin Islands	Americas-II	0.21	80
U.S. Virgin Islands	MAC	0.07	70

13. Moreover, to evaluate whether capacity on these existing undersea cables will be sufficient to meet future demand during Connect America Phase II, the same busy hour offered load assumptions incorporated into CAM v3.2 were used to compare demand (i.e. required capacity) to supply (i.e. lit and total capacity of the international fiber routes with landing sites on each non-contiguous area). The comparison of future demand to current lit capacity (of the highest capacity fiber in the area) may over-state the extent to which new undersea systems are required, while the comparison to total capacity (of the highest capacity fiber in the area) may understate costs in the near-term. Therefore, the comparisons were averaged.

14. Table 3, below, shows the comparisons of capacity to both the lit and total capacity of the largest single cable, as well as the average of those comparisons. The Bureau seeks comment on this approach to evaluating capacity and on the calculations reflected in the table.

15. Table 3: Comparisons of Demand to Supply

AREA	DEMAND (Gbps)	HIGHEST TOTAL CAPACITY (Tbps)	% DEMAND to TOTAL CAPACITY	HIGHEST LIT CAPACITY (Gbps)	% DEMAND to LIT CAPACITY	AVERA GE
Hawaii	213.6	6	3.956%	2,000	11.867%	7.91%
North Marianas Islands (Guam to Oregon)	7.7	7.68	0.111%	5,120	0.166%	0.14%
Puerto Rico	587.9	80	0.816%	310	100%	50.00%
U.S. Virgin Islands (Puerto Rico to Florida)	20.0	80	0.028%	310	7.168%	3.60%

16. Finally, CAM v3.2 estimates the cost that carriers will face in securing transport to and from the contiguous United States by applying the averages listed in Table 3 to the CAM-calculated cost of the total route. Because the Alaska route and the Northern Marianas to Guam portion of the Northern Marianas route are not shared with any international traffic, CAM v3.2 includes 50 percent of the costs of connecting Alaska to Oregon and Washington, the Northern Marianas to Guam, and the U.S. Virgin Islands to Puerto Rico, which is the default middle mile allocation in CAM v3.2. Table 4, below, shows the resulting cost per location per month. The Commission seeks comment on these averages and/or allocations and whether the resulting monthly cost per location is a reasonable estimate.

17. Table 4: Monthly Cost Per Location

AREA	INVESTMENT FOR THE ROUTE	MONTHLY COST PER LOCATION
Alaska	\$85.6 million	\$5.40
Hawaii	\$24.4 million	\$0.65
North Marianas Islands	\$18.9 million	\$15.44
Puerto Rico	\$72.9 million	\$0.72
U.S. Virgin Islands	\$20.0 million	\$6.34

18. Issue for Comment: Plant Mix. As noted above, CAM v3.2 includes in the Plant Mix input collection table the Alaska-specific plant mix values recently proposed by ACS. These values are reproduced in Table 5, below. The ACS filed plant mix values for suburban distribution and suburban feeder as filed did not total 100%. (Total of aerial, buried and underground plant mix values for distribution and feeder equaled 101 percent.) The values shown in the table reflect a staff adjustment to force the filed values to equal 100%. Staff multiplied each of the values by 100/101 to reflect the same relationship and make the sum of aerial, buried and underground equal 100%.

19. Table 5: ACS Proposed Plant Mix Values

State	Density	Distribution			Feeder			IOF		
		Aerial	Buried	Under-ground	Aerial	Buried	Under-ground	Aerial	Buried	Under-ground
AK	Rural	25.0%	61.0%	14.0%	25.0%	61.0%	14.0%	28.0%	58.0%	14.0%
AK	Suburban	23.8%	48.5%	27.7%	23.8%	48.5%	27.7%	24.0%	55.0%	21.0%
AK	Urban	20.0%	40.0%	40.0%	20.0%	40.0%	40.0%	15.0%	50.0%	35.0%

20. ACS also submitted its current plant mix values which are reproduced in Table 6, below.

21. Table 6: ACS Current Plant Mix Values

Plant Mix: All			
Density	Aerial	Buried	Underground
Rural	27%	63%	10%
Suburban	32%	64%	4%
Urban	33%	43%	24%
Plant Mix: Copper			

Density	Aerial	Buried	Underground
Rural	28%	68%	4%
Suburban	33%	64%	3%
Urban	35%	47%	19%
Plant Mix: Fiber			
Density	Aerial	Buried	Underground
Rural	19%	19%	61%
Suburban	16%	62%	22%
Urban	23%	21%	56%

22. The current plant mix submitted by ACS differs from what ACS proposes should be used in the CAM. For the other carriers, CAM v3.2 uses carrier-supplied plant mix values that reflect their current plant mix. The Bureau seeks comment on whether to make any adjustments to the Alaska-specific plant mix values contained in CAM v3.2, in light of ACS's current plant mix.

23. The Bureau also seeks comment on whether it should incorporate into the next version of the CAM the plant mix values for Puerto Rico and the Virgin Islands that PRTC and Vitelco previously submitted in conjunction with their proposals for standalone models.

24. Issue for Comment: Cost Adjustment for the U.S. Virgin Islands. Because the source that CAM relies on for regional cost adjustments for the rest of the United States does not include values for the U.S. Virgin Islands, CAM v3.2 sets the value of the cost adjustment for Zip 3 = 008 to 1.0 (i.e., no adjustment). The Bureau seeks comment on using this value for the U.S. Virgin Islands.

25. Other Proposals. The Bureau notes that ACS has proposed additional modifications to the CAM that it contends would more appropriately reflect the costs of serving Alaska. The Bureau is continuing to evaluate those proposals.

26. If parties, including carriers serving other non-contiguous areas, have other proposals or data that they wish to file concerning the treatment of non-contiguous areas in the CAM, such information should be filed by the reply comment deadline specified on the first page of this Public Notice. All submissions should be in a form that can be readily incorporated into the CAM. Parties should contact Bureau staff indicated at the beginning of this summary if they wish to file any information confidentially in order to discuss how to submit that information in a way that can be incorporated into the next version of

the CAM.

27. Access to CAM v3.2. To access CAM v3.2, parties should follow the same procedures announced for previous versions. In particular, parties may access CAM v3.2 at <http://www.fcc.gov/encyclopedia/caf-phase-ii-models> or <https://cacm.usac.org>. Additionally, authorized users who have signed the attachments to the protective order will have access to a system evaluator package that provides a test environment populated with a sample database, allowing users to view database structures, observe the processing steps of CAM for a subset of the country, and see changes in the database.

28. Updated Documentation. In conjunction with the release of CAM v3.2, the Bureau also announces the availability of updated methodology documentation for CAM v3.2, to assist the public in understanding the current model architecture, processing steps, and data sources. The methodology documentation is available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-323071A1.pdf.

29. Illustrative Results. The Bureau also is releasing illustrative model outputs from running CAM v3.2 using different combinations of possible model inputs and support assumptions. To demonstrate a range of potential outcomes, The Bureau is providing illustrative model outputs with funding thresholds of \$49.15, \$52, and \$55.40. The reports show potential support amounts and number of supported locations, by carrier, by study area, and by state, using the default input values in CAM v3.2. The reports are available at <http://www.fcc.gov/encyclopedia/connect-america-cost-model-illustrative-results>. Because the Bureau has not yet finalized and adopted a cost model, the illustrative results that the Bureau is releasing are not final support amounts.

I. PROCEDURAL MATTERS

A. Initial Regulatory Flexibility Act Analysis

30. The Non-Contiguous Areas PN, 78 FR 12006, February 21, 2013, included an Initial Regulatory Flexibility Analysis (IRFA) pursuant to 5 U.S.C. 603, exploring the possible significant economic impact on small entities of the policies and rules proposed therein. The Commission invites parties to file comments on the IRFA in light of this additional Public Notice.

B. Paperwork Reduction Act

31. This document does not contain proposed information collection(s) subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4).

C. Filing Requirements

32. Pursuant to §§ 1.415 and 1.419 of the Commission's rules, 47 CFR 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments are to reference WC Docket No. 10-90 and DA 13-1846, and may be filed by paper or by using the Commission's Electronic Comment Filing System (ECFS).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://fjallfoss.fcc.gov/ecfs2/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
 - All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.

33. In addition, we request that one copy of each pleading be sent to each of the following:

(1) Dania Ayoubi, Telecommunications Access Policy Division, Wireline Competition Bureau, 445 12th Street, SW, Room 6-A322, Washington, D.C. 20554; e-mail: Dania.Ayoubi@fcc.gov;

(2) Charles Tyler, Telecommunications Access Policy Division, Wireline Competition Bureau, 445 12th Street, SW, Room 5-A452, Washington, D.C. 20554; e-mail: <mailto:Charles.Tyler@fcc.gov>.

34. People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

The proceeding this Notice initiates shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s ex parte rules. Persons making ex parte presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the ex parte presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter’s written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during ex parte meetings are deemed to

be written ex parte presentations and must be filed consistent with rule § 1.1206(b). In proceedings governed by rule § 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.

FEDERAL COMMUNICATIONS COMMISSION

Kimberly A. Scardino,
Chief, Telecommunications Access Policy Division
Wireline Competition Bureau.

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